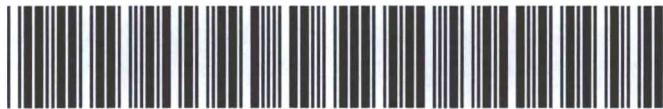




# AE Order Number Banner

## Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.



**App Number: pCS1507831688**

**3RP - 1024**

**ELM RIDGE EXPLORATION COMPANY LLC**

10/20/2017

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised August 8, 2011

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company: Elm Ridge Exploration kna DJR operating	Contact: Dianna Hamilton 330-2736
Address: #20 CR 5060 Bloomfield, NM 87413	Telephone No. 634-1144
Facility Name: AXI Apache H12	Facility Type: pipeline

Surface Owner: Jicarilla	Mineral Owner:	API No. n/a
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	9	23N	5W					

Latitude: 36.24511 Longitude: -107.37634

OIL CONS. DIV DIST. 3

**NATURE OF RELEASE**

OCT 05 2017

Type of Release: Water and oil mixture	Volume of Release: unknown	Volume Recovered: n/a
Source of Release: unknown at this time, suspected corrosion in pipeline	Date and Hour of Occurrence	9.5.17 afternoon
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith	
By Whom? Dianna Hamilton	Date and Hour 9.5.17 3:48pm	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\* Release is just off the bank of the wash, water table was not reached during the course of the excavation and clean up.

Describe Cause of Problem and Remedial Action Taken.\* Source of release was about a dime size hole in pipe due to corrosion. During a routine standard line locate, employee was using gas sniffer detection device which report high concentrations of gas, employee had wells shut in and placed a one call. Once one call was released, excavation began where it was discovered that soil was saturated with hydrocarbon odor. Jicarilla tribe was notified, once source of release was found, soil sampling was conducted, all labs came back well below standards. Approval from the tribe was received on 9/25/17 for backfill. Permission to use backfill soil from the J6 borrow pit was given by the tribe, backfill was completed on 9/25/17.

Describe Area Affected and Cleanup Action Taken.\* See diagram for sampling details. Area was excavated, contaminated soil was hauled to IEI. Clean backfill soil was taken from the J6 borrow pit per the tribes request. 5pt. composite soil samples were taken from N, S, E & W walls as well as the base of the excavation. Lab results were well below OCD standards, backfill was completed.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Dianna Hamilton</i>	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Dianna Hamilton	Approved by Environmental Specialist: <i>Cory Smith</i>	
Title: HSE Coordinator	Approval Date: 10/20/17	Expiration Date:
E-mail Address: dhamilton@djrlc.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: September 26, 2017 Phone: 505-330-2736	—	—

\* Attach Additional Sheets If Necessary

#NCS 1729340045

20

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
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District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised August 8, 2011

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**  Initial Report  Final Report

Name of Company: Elm Ridge Exploration kna DJR operating	Contact: Dianna Hamilton 330-2736
Address: #20 CR 5060 Bloomfield, NM 87413	Telephone No. 634-1144
Facility Name: AXI Apache H12	Facility Type: pipeline

Surface Owner: Jicarilla	Mineral Owner:	API No. n/a
--------------------------	----------------	-------------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	9	23N	5W					

Latitude: 36.24511 Longitude: -107.37634

**NATURE OF RELEASE**

Type of Release: Water and oil mixture	Volume of Release: unknown	Volume Recovered: n/a
Source of Release: unknown at this time, suspected corrosion in pipeline	Date and Hour of Occurrence	9.5.17
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith	
By Whom? Dianna Hamilton	Date and Hour 9.5.17 3:48pm	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\* Release is just off the bank of the wash, full extent of excavation is still yet to be determined.

Describe Cause of Problem and Remedial Action Taken.\* Source of release has not been discovered yet, During a routine standard line locate, employee was using gas sniffer detection device which report high concentrations of gas, employee had wells shut in and placed a one call. Once one call was released, excavation began where it was discovered that soil was saturated with hydrocarbon odor. Jicarilla tribe was notified, once source of release is found, soil sampling and clean up will begin.

Describe Area Affected and Cleanup Action Taken.\* TBD

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Dianna Hamilton</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Dianna Hamilton	Approved by Environmental Specialist: _____	
Title: HSE Coordinator	Approval Date:	Expiration Date:
E-mail Address: dhamilton@djrlc.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: September 6, 2017 Phone: 505-330-2736		

\* Attach Additional Sheets If Necessary

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-138  
Revised August 1, 2011

\*Surface Waste Management Facility Operator  
and Generator shall maintain and make this  
documentation available for Division inspection.

**REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE**

**1. Generator Name and Address:**

**DJR Operating, LLC**

**2. Originating Site:**

**AXI Apache H12**

**3. Location of Material (Street Address, City, State or ULSTR):**

**N. 36.24511 W. -107.37624 S9 T23N R5W**

**4. Source and Description of Waste: Water oil mixture from pipeline release.**

Estimated Volume 50 yd<sup>3</sup> / bbls Known Volume (to be entered by the operator at the end of the haul) \_\_\_\_\_ yd<sup>3</sup> / bbls

**5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Dianna R. Hamilton, representative or authorized agent for DJR Operating do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency  Monthly  Weekly  Per Load

RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

MSDS Information  RCRA Hazardous Waste Analysis  Process Knowledge  Other (Provide description in Box 4)

**GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS**

I, Dianna Hamilton, representative for DJR Operating do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

**5. Transporter: NRE**

**OCD Permitted Surface Waste Management Facility**

Name and Facility Permit #: JFJ Landfarm / Industrial Ecosystems, INC

Address of Facility: **#49 CR 3150 Aztec, NM 87410**

Method of Treatment and/or Disposal:

Evaporation  Injection  Treating Plant  Landfarm  Landfill  Other

**Waste Acceptance Status:**

APPROVED  DENIED (Must Be Maintained As Permanent Record)

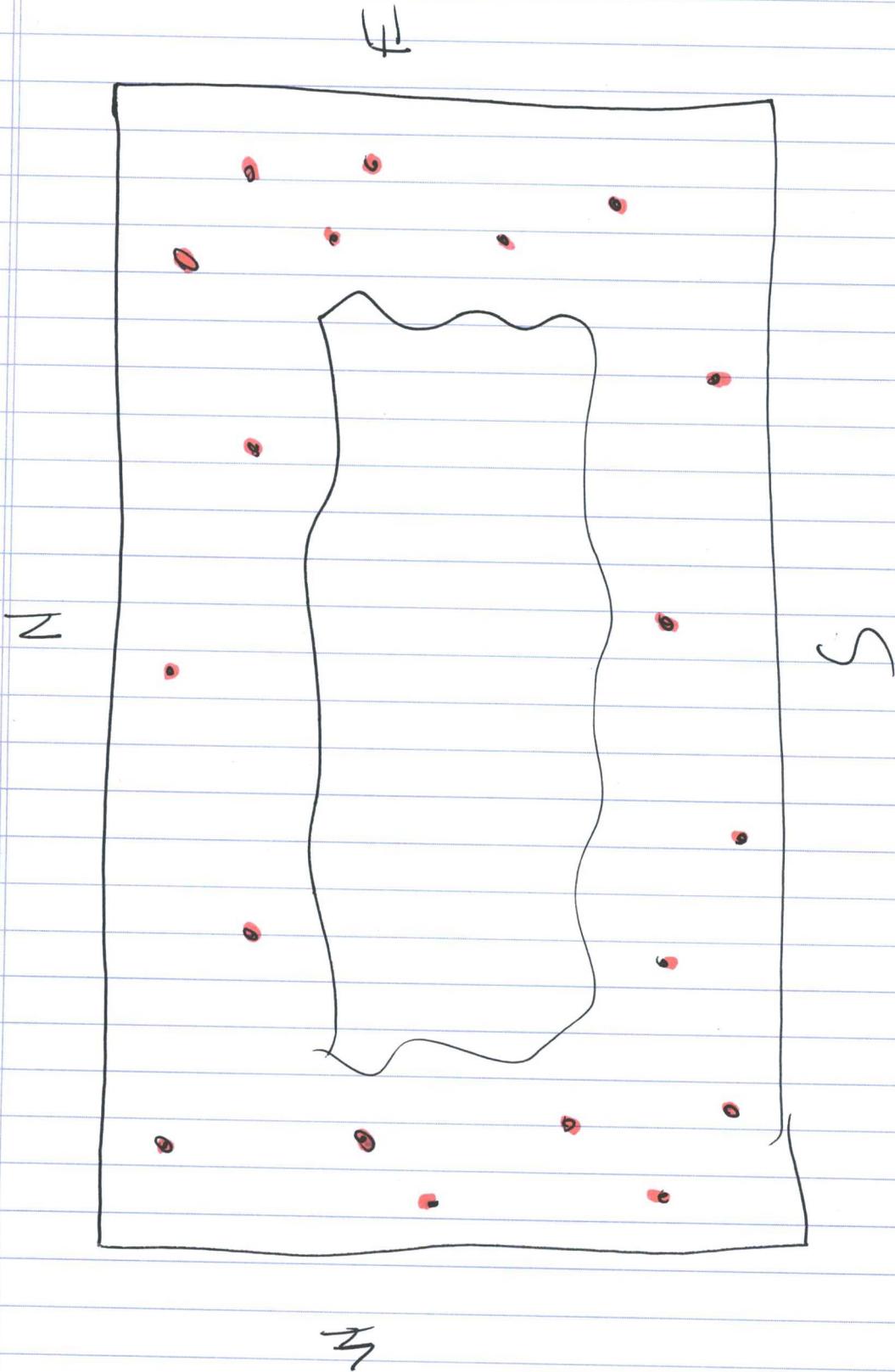
PRINT NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ TELEPHONE NO.: \_\_\_\_\_

Surface Waste Management Facility Authorized Agent

# Jic. AXI H-12 Sampling

Date





75 Suttle Street  
Durango, CO 81303  
970.247.4220 Phone  
970.247.4227 Fax  
[www.greenanalytical.com](http://www.greenanalytical.com)

21 September 2017

Dianna Hamilton  
DJR Operating  
#20 CR 5060  
Bloomfield, NM 87413  
RE: TPH Ext.

Enclosed are the results of analyses for samples received by the laboratory on 09/11/17 15:40.  
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads 'Debbie Zufelt'.

Debbie Zufelt  
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (\*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8.



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

DJR Operating #20 CR 5060 Bloomfield NM, 87413	Project: TPH Ext. Project Name / Number: AXI Apache H-12 Project Manager: Dianna Hamilton	Reported: 09/21/17 17:07
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N. Wall SC1	1709083-01	Solid	09/11/17 13:00	09/11/17 15:40
N. Wall SC2	1709083-02	Solid	09/11/17 13:00	09/11/17 15:40
S. Wall SC1	1709083-03	Solid	09/11/17 13:00	09/11/17 15:40
S. Wall SC2	1709083-04	Solid	09/11/17 13:00	09/11/17 15:40
E. Wall SC1	1709083-05	Solid	09/11/17 13:00	09/11/17 15:40
E. Wall SC2	1709083-06	Solid	09/11/17 13:00	09/11/17 15:40
W. Wall SC1	1709083-07	Solid	09/11/17 13:00	09/11/17 15:40
W. Wall SC2	1709083-08	Solid	09/11/17 13:00	09/11/17 15:40
Base SC1	1709083-09	Solid	09/11/17 13:00	09/11/17 15:40
Base SC2	1709083-10	Solid	09/11/17 13:00	09/11/17 15:40

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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DJR Operating #20 CR 5060 Bloomfield NM, 87413	Project: TPH Ext. Project Name / Number: AXI Apache H-12 Project Manager: Dianna Hamilton	Reported: 09/21/17 17:07
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**N. Wall SC1**

**1709083-01 (Solid)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**Subcontracted -- Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	0.002	mg/kg	50	09/19/17	8021B		MS
Toluene*	<0.050	0.050	0.002	mg/kg	50	09/19/17	8021B		MS
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	09/19/17	8021B		MS
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	09/19/17	8021B		MS
Total BTEX	<0.300	0.300	0.018	mg/kg	50	09/19/17	8021B		MS

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 72-148 09/19/17 8021B MS

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10	<10.0	10.0	3.53	mg/kg	1	09/15/17	8015B		MS
DRO >C10-C28	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS

Surrogate: 1-Chlorooctane 100 % 28.3-164 09/15/17 8015B MS

Surrogate: 1-Chlorooctadecane 102 % 34.7-157 09/15/17 8015B MS

Green Analytical Laboratories

*Debbie Zufelt*

Debbie Zufelt, Reports Manager

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DJR Operating #20 CR 5060 Bloomfield NM, 87413	Project: TPH Ext. Project Name / Number: AXI Apache H-12 Project Manager: Dianna Hamilton	Reported: 09/21/17 17:07
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**N. Wall SC2**

**1709083-02 (Solid)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**Subcontracted -- Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	0.002	mg/kg	50	09/19/17	8021B		MS
Toluene*	<0.050	0.050	0.002	mg/kg	50	09/19/17	8021B		MS
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	09/19/17	8021B		MS
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	09/19/17	8021B		MS
Total BTEX	<0.300	0.300	0.018	mg/kg	50	09/19/17	8021B		MS

Surrogate: 4-Bromofluorobenzene (PID) 101 % 72-148 09/19/17 8021B MS

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10	<10.0	10.0	3.53	mg/kg	1	09/15/17	8015B		MS
DRO >C10-C28	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS

Surrogate: 1-Chlorooctane 105 % 28.3-164 09/15/17 8015B MS

Surrogate: 1-Chlorooctadecane 106 % 34.7-157 09/15/17 8015B MS

Green Analytical Laboratories

*Debbie Zufelt*

Debbie Zufelt, Reports Manager

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DJR Operating #20 CR 5060 Bloomfield NM, 87413	Project: TPH Ext. Project Name / Number: AXI Apache H-12 Project Manager: Dianna Hamilton	Reported: 09/21/17 17:07
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**S. Wall SC1**

**1709083-03 (Solid)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**Subcontracted -- Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	0.002	mg/kg	50	09/19/17	8021B		MS
Toluene*	<0.050	0.050	0.002	mg/kg	50	09/19/17	8021B		MS
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	09/19/17	8021B		MS
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	09/19/17	8021B		MS
Total BTEX	<0.300	0.300	0.018	mg/kg	50	09/19/17	8021B		MS

Surrogate: 4-Bromofluorobenzene (PID) 101 % 72-148 09/19/17 8021B MS

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10	<10.0	10.0	3.53	mg/kg	1	09/15/17	8015B		MS
DRO >C10-C28	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS

Surrogate: 1-Chlorooctane 96.5 % 28.3-164 09/15/17 8015B MS

Surrogate: 1-Chlorooctadecane 101 % 34.7-157 09/15/17 8015B MS

Green Analytical Laboratories

*Debbie Zufelt*

Debbie Zufelt, Reports Manager

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DJR Operating #20 CR 5060 Bloomfield NM, 87413	Project: TPH Ext. Project Name / Number: AXI Apache H-12 Project Manager: Dianna Hamilton	Reported: 09/21/17 17:07
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**S. Wall SC2**

**1709083-04 (Solid)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**Subcontracted -- Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	0.002	mg/kg	50	09/19/17	8021B		MS
Toluene*	<0.050	0.050	0.002	mg/kg	50	09/19/17	8021B		MS
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	09/19/17	8021B		MS
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	09/19/17	8021B		MS
Total BTEX	<0.300	0.300	0.018	mg/kg	50	09/19/17	8021B		MS

Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148 09/19/17 8021B MS

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10	<10.0	10.0	3.53	mg/kg	1	09/15/17	8015B		MS
DRO >C10-C28	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS

Surrogate: 1-Chlorooctane 98.0 % 28.3-164 09/15/17 8015B MS

Surrogate: 1-Chlorooctadecane 96.1 % 34.7-157 09/15/17 8015B MS

Green Analytical Laboratories

*Debbie Zufelt*

Debbie Zufelt, Reports Manager

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DJR Operating #20 CR 5060 Bloomfield NM, 87413	Project: TPH Ext. Project Name / Number: AXI Apache H-12 Project Manager: Dianna Hamilton	Reported: 09/21/17 17:07
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**E. Wall SC1**

**1709083-05 (Solid)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**Subcontracted -- Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	0.002	mg/kg	50	09/19/17	8021B		MS
Toluene*	<0.050	0.050	0.002	mg/kg	50	09/19/17	8021B		MS
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	09/19/17	8021B		MS
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	09/19/17	8021B		MS
Total BTEX	<0.300	0.300	0.018	mg/kg	50	09/19/17	8021B		MS

Surrogate: 4-Bromofluorobenzene (PID) 100 % 72-148 09/19/17 8021B MS

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10	<10.0	10.0	3.53	mg/kg	1	09/15/17	8015B		MS
DRO >C10-C28	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS

Surrogate: 1-Chlorooctane 96.9 % 28.3-164 09/15/17 8015B MS

Surrogate: 1-Chlorooctadecane 102 % 34.7-157 09/15/17 8015B MS

Green Analytical Laboratories

*Debbie Zufelt*

Debbie Zufelt, Reports Manager

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DJR Operating #20 CR 5060 Bloomfield NM, 87413	Project: TPH Ext. Project Name / Number: AXI Apache H-12 Project Manager: Dianna Hamilton	Reported: 09/21/17 17:07
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**E. Wall SC2**

**1709083-06 (Solid)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**Subcontracted -- Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	0.002	mg/kg	50	09/19/17	8021B		MS
Toluene*	<0.050	0.050	0.002	mg/kg	50	09/19/17	8021B		MS
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	09/19/17	8021B		MS
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	09/19/17	8021B		MS
Total BTEX	<0.300	0.300	0.018	mg/kg	50	09/19/17	8021B		MS

Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148 09/19/17 8021B MS

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10	<10.0	10.0	3.53	mg/kg	1	09/15/17	8015B		MS
DRO >C10-C28	18.3	10.0	2.04	mg/kg	1	09/15/17	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS

Surrogate: 1-Chlorooctane 101 % 28.3-164 09/15/17 8015B MS

Surrogate: 1-Chlorooctadecane 106 % 34.7-157 09/15/17 8015B MS

Green Analytical Laboratories

*Debbie Zufelt*

Debbie Zufelt, Reports Manager

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DJR Operating #20 CR 5060 Bloomfield NM, 87413	Project: TPH Ext. Project Name / Number: AXI Apache H-12 Project Manager: Dianna Hamilton	Reported: 09/21/17 17:07
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**W. Wall SC1**

**1709083-07 (Solid)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**Subcontracted -- Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	0.002	mg/kg	50	09/19/17	8021B		MS
Toluene*	<0.050	0.050	0.002	mg/kg	50	09/19/17	8021B		MS
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	09/19/17	8021B		MS
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	09/19/17	8021B		MS
Total BTEX	<0.300	0.300	0.018	mg/kg	50	09/19/17	8021B		MS
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	72-148		09/19/17	8021B		MS

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10	<10.0	10.0	3.53	mg/kg	1	09/15/17	8015B		MS
DRO >C10-C28	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS
<i>Surrogate: 1-Chlorooctane</i>			101 %	28.3-164		09/15/17	8015B		MS
<i>Surrogate: 1-Chlorooctadecane</i>			102 %	34.7-157		09/15/17	8015B		MS

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Debbie Zufelt, Reports Manager

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DJR Operating  
#20 CR 5060  
Bloomfield NM, 87413

Project: TPH Ext.  
Project Name / Number: AXI Apache H-12  
Project Manager: Dianna Hamilton

Reported:  
09/21/17 17:07

**W. Wall SC2**

**1709083-08 (Solid)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**Subcontracted -- Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	0.002	mg/kg	50	09/19/17	8021B		MS
Toluene*	<0.050	0.050	0.002	mg/kg	50	09/19/17	8021B		MS
Ethylbenzene*	<0.050	0.050	0.004	mg/kg	50	09/19/17	8021B		MS
Total Xylenes*	<0.150	0.150	0.010	mg/kg	50	09/19/17	8021B		MS
Total BTEX	<0.300	0.300	0.018	mg/kg	50	09/19/17	8021B		MS
Surrogate: 4-Bromofluorobenzene (PID)			100 %	72-148		09/19/17	8021B		MS

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10	<10.0	10.0	3.53	mg/kg	1	09/15/17	8015B		MS
DRO >C10-C28	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS
EXT DRO >C28-C36	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS
Surrogate: 1-Chlorooctane			88.0 %	28.3-164		09/15/17	8015B		MS
Surrogate: 1-Chlorooctadecane			98.3 %	34.7-157		09/15/17	8015B		MS

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Debbie Zufelt, Reports Manager

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DJR Operating  
#20 CR 5060  
Bloomfield NM, 87413

Project: TPH Ext.  
Project Name / Number: AXI Apache H-12  
Project Manager: Dianna Hamilton

**Reported:**  
09/21/17 17:07

**Base SC1**

**1709083-09 (Solid)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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**Subcontracted -- Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

<b>Benzene*</b>	<0.050	0.050	0.002	mg/kg	50	09/20/17	8021B		MS
<b>Toluene*</b>	<0.050	0.050	0.002	mg/kg	50	09/20/17	8021B		MS
<b>Ethylbenzene*</b>	<0.050	0.050	0.004	mg/kg	50	09/20/17	8021B		MS
<b>Total Xylenes*</b>	<0.150	0.150	0.010	mg/kg	50	09/20/17	8021B		MS
<b>Total BTEX</b>	<0.300	0.300	0.018	mg/kg	50	09/20/17	8021B		MS

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 72-148 09/20/17 8021B MS

**Petroleum Hydrocarbons by GC FID**

<b>GRO C6-C10</b>	<10.0	10.0	3.53	mg/kg	1	09/15/17	8015B		MS
<b>DRO &gt;C10-C28</b>	14.7	10.0	2.04	mg/kg	1	09/15/17	8015B		MS
<b>EXT DRO &gt;C28-C36</b>	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS

Surrogate: 1-Chlorooctane 94.5 % 28.3-164 09/15/17 8015B MS

Surrogate: 1-Chlorooctadecane 96.5 % 34.7-157 09/15/17 8015B MS

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DJR Operating  
#20 CR 5060  
Bloomfield NM, 87413

Project: TPH Ext.  
Project Name / Number: AXI Apache H-12  
Project Manager: Dianna Hamilton

Reported:  
09/21/17 17:07

**Base SC2**

**1709083-10 (Solid)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories

**Volatile Organic Compounds by EPA Method 8021**

<b>Benzene*</b>	<0.050	0.050	0.002	mg/kg	50	09/20/17	8021B		MS
<b>Toluene*</b>	<0.050	0.050	0.002	mg/kg	50	09/20/17	8021B		MS
<b>Ethylbenzene*</b>	<0.050	0.050	0.004	mg/kg	50	09/20/17	8021B		MS
<b>Total Xylenes*</b>	<0.150	0.150	0.010	mg/kg	50	09/20/17	8021B		MS
<b>Total BTEX</b>	<0.300	0.300	0.018	mg/kg	50	09/20/17	8021B		MS

Surrogate: 4-Bromofluorobenzene (PID) 101 % 72-148 09/20/17 8021B MS

**Petroleum Hydrocarbons by GC FID**

<b>GRO C6-C10</b>	<10.0	10.0	3.53	mg/kg	1	09/15/17	8015B		MS
<b>DRO &gt;C10-C28</b>	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS
<b>EXT DRO &gt;C28-C36</b>	<10.0	10.0	2.04	mg/kg	1	09/15/17	8015B		MS

Surrogate: 1-Chlorooctane 105 % 28.3-164 09/15/17 8015B MS

Surrogate: 1-Chlorooctadecane 105 % 34.7-157 09/15/17 8015B MS

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DJR Operating  
#20 CR 5060  
Bloomfield NM, 87413

Project: TPH Ext.  
Project Name / Number: AXI Apache H-12  
Project Manager: Dianna Hamilton

Reported:  
09/21/17 17:07

**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7091802 - Volatiles**

**Blank (7091802-BLK1)**

Prepared: 09/18/17 Analyzed: 09/19/17

Surrogate: 4-Bromofluorobenzene (PID)	0.0508		mg/kg	0.0500		102	72-148			
Benzene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Total Xylenes	ND	0.150	mg/kg							

**LCS (7091802-BS1)**

Prepared: 09/18/17 Analyzed: 09/19/17

Surrogate: 4-Bromofluorobenzene (PID)	0.0496		mg/kg	0.0500		99.2	72-148			
Benzene	1.95	0.050	mg/kg	2.00		97.6	79.5-124			
Ethylbenzene	1.87	0.050	mg/kg	2.00		93.5	77.7-125			
Toluene	1.79	0.050	mg/kg	2.00		89.6	75.5-127			
Total Xylenes	5.67	0.150	mg/kg	6.00		94.5	70.9-124			

**LCS Dup (7091802-BSD1)**

Prepared: 09/18/17 Analyzed: 09/19/17

Surrogate: 4-Bromofluorobenzene (PID)	0.0506		mg/kg	0.0500		101	72-148			
Benzene	1.94	0.050	mg/kg	2.00		97.0	79.5-124	0.549	6.5	
Ethylbenzene	1.86	0.050	mg/kg	2.00		93.0	77.7-125	0.518	7.83	
Toluene	1.80	0.050	mg/kg	2.00		90.0	75.5-127	0.457	7.02	
Total Xylenes	5.65	0.150	mg/kg	6.00		94.2	70.9-124	0.307	7.78	

**Batch 7091902 - Volatiles**

**Blank (7091902-BLK1)**

Prepared: 09/19/17 Analyzed: 09/20/17

Surrogate: 4-Bromofluorobenzene (PID)	ND		mg/kg	0.0500		99.7	72-148			
Benzene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Total Xylenes	ND	0.150	mg/kg							

**LCS (7091902-BS1)**

Prepared: 09/19/17 Analyzed: 09/20/17

Surrogate: 4-Bromofluorobenzene (PID)	0.0498		mg/kg	0.0500		99.7	72-148			
Benzene	2.01	0.050	mg/kg	2.00		100	79.5-124			
Ethylbenzene	1.93	0.050	mg/kg	2.00		96.3	77.7-125			
Toluene	1.84	0.050	mg/kg	2.00		92.2	75.5-127			
Total Xylenes	5.74	0.150	mg/kg	6.00		95.7	70.9-124			

**LCS Dup (7091902-BSD1)**

Prepared: 09/19/17 Analyzed: 09/20/17

Surrogate: 4-Bromofluorobenzene (PID)	0.0499		mg/kg	0.0500		99.8	72-148			
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*Debbie Zufelt*

Debbie Zufelt, Reports Manager

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DJR Operating  
#20 CR 5060  
Bloomfield NM, 87413

Project: TPH Ext.  
Project Name / Number: AXI Apache H-12  
Project Manager: Dianna Hamilton

Reported:  
09/21/17 17:07

**Volatile Organic Compounds by EPA Method 8021 - Quality Control  
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7091902 - Volatiles (Continued)**

**LCS Dup (7091902-BSD1) (Continued)**

Prepared: 09/19/17 Analyzed: 09/20/17

Benzene	1.96	0.050	mg/kg	2.00		98.1	79.5-124	2.29	6.5	
Ethylbenzene	1.89	0.050	mg/kg	2.00		94.5	77.7-125	1.88	7.83	
Toluene	1.82	0.050	mg/kg	2.00		91.0	75.5-127	1.40	7.02	
Total Xylenes	5.69	0.150	mg/kg	6.00		94.9	70.9-124	0.914	7.78	

**Petroleum Hydrocarbons by GC FID - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7091501 - General Prep - Organics**

**Blank (7091501-BLK1)**

Prepared & Analyzed: 09/15/17

Surrogate: 1-Chlorooctadecane	54.3		mg/kg	50.0		109	34.7-157			
Surrogate: 1-Chlorooctane	49.8		mg/kg	50.0		99.7	28.3-164			
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
GRO C6-C10	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							

**LCS (7091501-BS1)**

Prepared & Analyzed: 09/15/17

Surrogate: 1-Chlorooctadecane	52.8		mg/kg	50.0		106	34.7-157			
Surrogate: 1-Chlorooctane	52.9		mg/kg	50.0		106	28.3-164			
DRO >C10-C28	203	10.0	mg/kg	200		102	81.4-124			
GRO C6-C10	192	10.0	mg/kg	200		96.1	76.6-119			
Total TPH C6-C28	395	10.0	mg/kg	400		98.8	79.4-121			

**LCS Dup (7091501-BSD1)**

Prepared & Analyzed: 09/15/17

Surrogate: 1-Chlorooctadecane	51.0		mg/kg	50.0		102	34.7-157			
Surrogate: 1-Chlorooctane	52.6		mg/kg	50.0		105	28.3-164			
DRO >C10-C28	198	10.0	mg/kg	200		99.2	81.4-124	2.31	9.83	
GRO C6-C10	192	10.0	mg/kg	200		95.9	76.6-119	0.181	7.94	
Total TPH C6-C28	390	10.0	mg/kg	400		97.6	79.4-121	1.27	8.57	

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DJR Operating  
#20 CR 5060  
Bloomfield NM, 87413

Project: TPH Ext.  
Project Name / Number: AXI Apache H-12  
Project Manager: Dianna Hamilton

Reported:  
09/21/17 17:07

**Notes and Definitions**

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis  
\*Results reported on as received basis unless designated as dry.
- RPD Relative Percent Difference
- LCS Laboratory Control Sample (Blank Spike)
- RL Report Limit
- MDL Method Detection Limit

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

(970) 247-4220  
 Fax: (970) 247-4227

service@greenanalytical.com or dzufelt@greenanalytical.com  
 75 Suttle St Durango, CO 81303

Page 16 of 16

Company or Client: <u>DJR Operating (Midstream)</u>		Bill to (if different):		<b>ANALYSIS REQUEST</b>					
Address: <u># 20 CR 5060</u>		P.O. #:							
City: <u>Bloomfield</u> State: <u>Nm</u> Zip: <u>87413</u>		Company:							
Phone #: <u>505 330 2736</u>		Attn:							
Contact Person: <u>Dianna Hamilton</u>		Address:							
Email Report to: <u>dhamilton@djrlc.com</u>		City:							
Project Name(optional): <u>Axi Apache H-12</u>		State: Zip:							
Sampler Name (Print): <u>Dianna Hamilton</u>		Phone #: Email:							

For Lab Use	Sample Name or Location	Collected		Matrix (check one)							# of containers						
		Date	Time	GROUNDWATER	SURFACEWATER	WASTEWATER	PRODUCEDWATER	SOIL	DRINKING WATER	OTHER :	No preservation (general)	HNO <sub>3</sub>	HCl	H <sub>2</sub> SO <sub>4</sub>	Other:	Other:	
1709-083-01	N. Wall SC1	9/11/17	1:00pm					X								X	BTEX
-02	N. Wall SC2															X	TPH
-03	S. Wall SC1																
-04	S. Wall SC2																
-05	E. Wall SC1																
-06	E. Wall SC2																
-07	W. Wall SC1																
-08	W. Wall SC2																
-09	Base SC1																
-10	Base SC2																

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Relinquished By: <u>Dianna Hamilton</u>	Date: <u>9/11/17</u>	Received By: <u>Christin Claus</u>	ADDITIONAL REMARKS:  Report to State? (Circle) Yes    No
Relinquished By: <u>Christin Claus</u>	Time: <u>3:40pm</u>	Received By: <u>Fed Ex</u>	
Relinquished By:	Date: <u>9/12/17</u>	Received By:	
Relinquished By:	Time: <u>1600</u>	Received By:	
Relinquished By:	Date:	Received By:	9.8c Temperature at receipt:
Relinquished By:	Time:	Received By:	<u>u</u> CHECKED BY

† GAL cannot always accept verbal changes. Please fax or email written change requests.  
 \* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.